



# Montana Fish, Wildlife & Parks

## Crucial Areas Assessment



### NATIVE GAME SPECIES

#### Forest Carnivore Habitat

**SUMMARY:** This layer depicts the relative value of areas based upon the specific habitat requirements of 3 forest carnivores; marten, fisher and wolverine. Values are cumulative, but it is important to realize that an area with a lower cumulative value can still contain high value habitat for just one species.

**MEASUREMENT UNIT:** Public land survey sections - approximately one square mile.

**MAPPING CONSIDERATIONS:** Indian reservations were not evaluated due to lack of data.

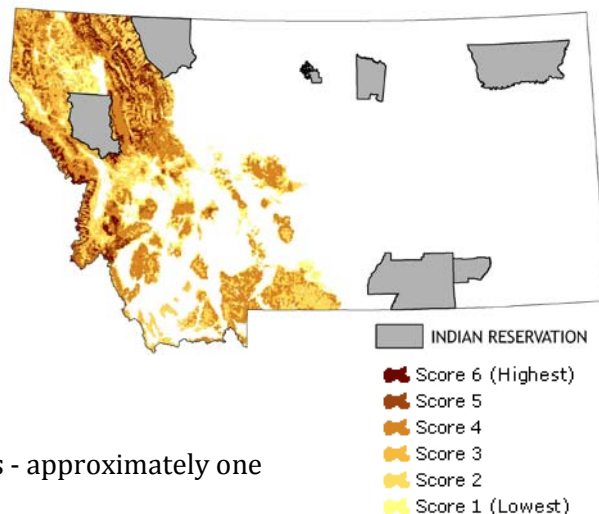
#### DATA SOURCE(S) / QUALITY:

**Forest Carnivores:** *Metric evaluated:* habitat suitability. *Species:* wolverine, fisher, marten. *Data*

*layers:* furbearer harvest locations – maintained in FWP mandatory reporting system. Reporting at the section level by trappers; Furbearer observation records – maintained in NHP Point Observation Database. Accuracy verified by NHP staff; Wolverine primary habitat model – produced by the Wildlife Conservation Society. Resolution is 90 meters; Fisher and marten habitat suitability model developed using known locations and reviewed by FWP biologists. Resolution is 90 meters.

DATA SOURCES	
<input type="radio"/>	Survey data – counts or estimates
<input checked="" type="radio"/>	Survey data – categorical (e.g. presence/absence)
<input type="radio"/>	Expert opinion based on observation
DATA EXTRAPOLATION TECHNIQUE USED	
<input type="radio"/>	None
<input checked="" type="radio"/>	Modeling of habitat-species associations (deductive)
<input checked="" type="radio"/>	Statistical modeling (inductive)
<input type="radio"/>	Extrapolation to habitat unit (e.g. stream section)
<input type="radio"/>	Extrapolation based on expert opinion

**METHODS:** Forest carnivore habitat values were determined by using habitat suitability models. The wolverine model was produced by the Wildlife Conservation Society. Sections with greater than 50% of the area identified as suitable habitat for wolverine were assigned 2 points. Fisher and marten models were produced by FWP. Model output was classified into 3 categories highly suitable, moderately suitable and not suitable. If greater than 50% of the section were in the moderate to highly suitable category 1 point was assigned. If greater than 50% of the section was in the highly suitable category 2 points were assigned. Values were then combined across all 3 species. In areas of species overlap, values were cumulative to a maximum value of 6 points. Values were only calculated in western forest habitats where forest carnivores were expected. The contribution to the overall possible terrestrial game score for each section was only considered in these forest areas. Thus in eastern prairies, the total possible score for a section only included prairie grouse, big game winter habitat, and bighorn sheep/mountain goat. The final summed value was rescaled to 0 to 1 before being combined with the other species categories.





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**FINAL CATEGORIZATION:** The resulting scores ranged from 0 to 6. Percentage of land area in each class is shown in the table.

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CATEGORY	PERCENT OF STATE
SCORE 6 (Highest)	1.1 %
SCORE 5	1.9 %
SCORE 4	7.8 %
SCORE 3	3.9 %
SCORE 2	6.3 %
SCORE 1 (Lowest)	2.4 %